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PROCEEDINGS OF SOCIETIES.

ENTOMOLOGICAL SOCIETY OF LONDON.

6 June 1883.—Prof. J. O. Westwood, the honorary life-president, read an address, upon taking the chair, in which he briefly reviewed the progress entomology had made in times within his remembrance.

Mr. Frank Cheshire, who was present as a visitor, made some observations on section-cutting of the probosces of honey-feeding insects, as referred to by Prof. Westwood in his address. He recommended that the insect to be operated upon should be kept fasting for some time and then fed upon honey mixed with gelatine impregnated with some highly colored dye; the insect should be immediately decapitated and the head rapidly cooled; it should then be embedded in gelatine and the section cut by means of the microtome. The mouth-passage is then easily seen from the presence of the dye. Mr. Cheshire then made some extended remarks on his various observations upon the minute structure and anatomy of the honey-bee, stating that many of his results differed much from the generally received authoritative statements. With regard to the tongue of the honey-bee, many authorities regarded it as a tube through its entire length, others as a gutter or trough, while in reality it is a trough on the upper side at the apex and a tube for the rest of its length; the structure of the extreme apex (Réaumur's "bouton"),—about which there existed so much difference of opinion,—was easily made out by the use of the means Mr. Cheshire recommended.

4 July 1883.—Miss E. A. Ormerod exhibited a bunch of *Atherix ibis*, Fabr., found on a sprig of alder [*Alnus*] overhanging water at Hampton Court by Mr. J. Arkwright. The swarm of flies measured about 6 in. [15 cm.] long by 3 in. [7.5 cm.] broad, and consisted of many thousand specimens.

Mr. E. A. Fitch called attention to a figure of a similar swarm of this species in the Compte-rendu of the Société entomologique de Belgique, for July 4th, 1874.

Mr. W. L. Distant exhibited specimens of four of the five known species of American *fulgoridae*. Three were from Central America.

Mr. G. C. Champion stated that in Central America he had kept forty or fifty specimens of *fulgoridae* alive for days, and had seen no trace of luminosity, neither did they stridulate; the evidence of the natives also was quite against these insects being luminous. The *fulgoridae* were very sluggish in their habits, Mr. Champion observing that he commonly found specimens on the trunks of trees, where they sometimes remained for days; he had never seen a specimen on the wing. Mr. Champion also related that he had not infrequently found larvae attached to and feeding on the white cottony secretion so abundant about some of the smaller *fulgoridae;* he had found as many as three larvae attached to one imago.

Prof. Westwood commented on the great interest of this last announcement, remarking that the three cases of lepidopterous parasitism on the *fulgoridae* already recorded by him (Trans. Entom. soc. Lond., 1876, p.

519; 1877, p. 433) occurred on eastern species. He was glad to hear that Mr. Champion had sent home specimens of the parasitic larvae, and hoped that further information would be attainable.

Mr. G. Lewis remarked on the different forms existing in the various species of *lucanidae*, and stated that he believed these were due to the food of the larvae—whether the diet of the individual larva was nutritious and abundant or otherwise.

Prof. Westwood remarked that the great modifications in the size, curvature, deflection and dentition of the mandibles in male *lucanidae* required great caution in not too hastily assuming identity of species in cases of great individual divergences.

1 Aug. 1883.—Sir Sidney Saunders communicated the purport of two letters addressed to him by M. Edmond André, of Beaune, upon the subject of the terminal segments "des chalcides à queue"; stating that, after further investigation, he concurred in considering Sichel's so-called *hypopygium* in those genera (Proc. Entom. soc. Lond., 1882, p. 26, fig. 7D) as a conjoint segment comprising the dorsal and ventral arcs of the 7th. This he intends to notice in the Annales of the French entomological society.

Mr. R. Meldola read notes from Dr. Fritz Müller, on the following subjects: "Persecution of distasteful butterflies by birds," "The colour of the pupa of *Papilio polydamas*" [showing that the green or brown coloration of the pupa does not depend upon the color of the object on which it pupates], and "How the caterpillar of *Eunomia eagrus*, Cram., employs its hairs" [showing by a figure how this glaucopid moth distributes its hairs each way from the pupa along the twig on which it pupates in order to defend the pupa from ants and non-flying foes.][1]

[1] The last two papers are printed in German under the titles "Die farbe der puppen von *Papilio polydamas*" and "Wie die raupe von *Eunomia eagrus* ihre haare verwendet" in Kosmos, March 1883, jahrg. 6, v. 12, p. 148-449.

5 Sept. 1883.—Mr. F. Enock exhibited a perfectly bilateral hermaphrodite *Macropis labiata*, Panz., the antennae, face, palpi, mandibles, legs, and genitalia showing very characteristically; the right side was male, the left female. [This bee is figured (Trans. Entom. soc. Lond., 1883; Proc. p. 25)].

In discussion, *Vanessa cardui*, L., *Pantala flavescens*, Fabr., and the trimorphic forms of *Nezara viridis*, L., were mentioned as being of cosmopolitan distribution, and *Danais archippus*, Fabr., was instanced as a species which had but lately taken to migration, being now found in Britain, the Azores, New Caledonia, and various oceanic islands, where it was previously known not to occur.

3 Oct. 1883.—Mr. W. F. Kirby, on behalf of M. Alfred Wailly, who was present as a visitor, exhibited a large box containing numerous bred specimens of various silk-producing *bombycidae*. . . . One extraordinary specimen of a *Samia* was very notable; . . . on this Mr. Kirby read a note entitled "Abnormal specimen of the genus *Samia*." [This note, describing the specimen in detail, is printed in Trans. Entom. soc. Lond., 1883: Proc., p. 27. Concerning this specimen and description the following remarks are furnished to the editors of Psyche:—

Abnormal Specimens of Samia and allies. The *Samia* described by Kirby is nothing but a suffused aberration of *cecropia*. It emerged from a cocoon received among many others of *cecropia* from the United States by Mons. Wailly, of London, Eng., who afterwards disposed of the moth to Mons. Godeffroi Mollinger, residing in the Netherlands. The latter sent me at the time an excellent, full size photograph of the insect, from which I saw in a moment that it was an abnormal *cecropia*. I have two agreeing with it almost exactly, save that they are not so large; have also seen another in a collection in New York that is nearly like it; in fact those things are not such rarities; almost any one who breeds large numbers of this or other species is likely out of the number to find some such monsters.

or "Spielarten" as the Germans designate them. I have at various times bred or acquired otherwise examples of *Telea polyphemus* destitute of the ocellate spots of the primaries; also of endless variety of color; of *Antheraea yamamai* I have some sulphur, others olive, and one black; of *Tropaea luna* some with two ocelli on *one* upper wing, and one without ocelli on any of the wings; and so on. I might go on enumerating hundreds in my own possession, besides many more scattered in various collections over the world.—Herman Strecker, Reading, Penn.]

5. Dec. 1883. — Mr. F. P. Pascoe exhibited some remarkable insects' nests from Delagoa Bay. They varied from half an inch [13 mm.] to an inch and a quarter [32 mm.] in length, and in shape from globular to ovate. They were semitransparent, yellowish, and the surface, under a lens, had a reticulate appearance; on one side, from the base to the apex was a stout suture, to which was attached a septum extending about two-thirds across the interior; on each side of this septum, but away from the suture, were placed in an erect position about 120 cylindrical eggs. These nests had much the appearance of the dried pods of the "bladder senna;" they were retained by a movable loop to the slender twigs of a shrub which Sir Joseph Hooker had pronounced to be a *Rhamnus*.

Mr. R. McLachlan considered that these curious bladder-like egg-cases belonged to one of the *mantidae*.

Mr. Wood-Mason did not think they should be attributed to the *mantidae*, altho possibly it might be so: he pointed out that the eggs were arranged in quite a different manner to those of any *Mantis* he had seen. He also suggested that the large vacant space existing between the egg-mass and the outside of the capsule would probably be protective against parasitic insects. — *Abstracted and compiled from Trans. Entom. soc. Lond., 1883; Proc., p. 13–35.*

2 April 1884.—Mr. H. J. Elwes read a paper, "On the genus *Parnassius*," especially referring to the anal pouch in the females as a specific character, and to the geographical distribution of the species; and made some remarks on their life-history. Mr. Elwes commented on the fact that almost every systematic writer except Boisduval had entirely overlooked the presence of the anal pouch. He illustrated his remarks by numerous diagrams, and by the exhibition of specimens of every known species and form occurring in the genus.

Lord Walsingham communicated a paper on "North American *tortricidae*." [Rec., 3938.]

7 May 1884.—Mr. W. F. Kirby exhibited a remarkably small and dark variety of *Samia cecropia* Linn., bred by Mr. Alfred Wailly.

Mr. A. S. Olliff exhibited a new species of *Helota*, collected in Angola by Dr. Welwitsch. The genus was previously known only from eastern Asia. Mr. Olliff said that Lord Walsingham had pointed out to him a similar and equally unexpected case of geographical distribution in the genus *Deuterocopus* of Zeller, belonging to the *pterophoridae*, which up to this time had only been known from Java, and of which he has lately received an undescribed species from Bathurst, West Africa.

Mr. A. G. Butler communicated a short paper by Mr. A. R. Grote entitled, "Note on the North American genus *Hemileuca*."

Mr. W. H. Patton communicated "Some notes on the classification and synonymy of fig-insects."

2 July 1884.—Dr. Fritz Müller (of Blumenau, Santa Catharina, Brazil) and Dr. A. S. Packard (of Providence, Rhode Island, U. S. A.) were elected honorary members of society.

Mr. T. R. Billups exhibited specimens (some living) of *Pelopaeus architectus*, and its nest, which was found attached to a leaf of tobacco from Owensboro, Kentucky, and taken from a hogshead recently opened at Whitechapel, England.

Mr. W. F. Kirby said that he had seen a

nest similar to the one now exhibited attached to a pod [ear] of maize.

Mr. T. R. Billups stated that he had frequently witnessed encounters between the larva of *Ocypus olens* and earthworms, and had kept *Carabus auratus* alive on nothing but earthworms for more than five months.

Dr. D: Sharp remarked that *Cybister roeselii* had been kept alive from five to seven years by being fed on earthworms once or twice a day; he thought .... that earthworms were the favorite food of carnivorous coleoptera.

Mr. W. L. Distant exhibited an ordinary specimen of *Cilix spinula*, and remarked that though its peculiar position when at rest had been described, it had not been noticed that it thus perfectly resembled a species of the homopterous genus *Flata*. ... He further remarked that the term "mimicry," recently loosely-used, could not be applied here, as the moth could hardly be considered to mimic a *Flata* which did not occur in our fauna.

Mr. E. A. Fitch called attention to the great resemblance that *Cilix spinula* bore to the excrement of a bird, when at rest on the upper side of a leaf, as was its common practice.

Mr. A. G. Butler remarked on the great similarity sometimes existing between lepidopterous and homopterous insects; he had lately described a lithosiid allied to *Nudaria*, from New Holland, which he certainly thought at first was a homopteron; the resemblance was so striking that he had named the genus *Homopsyche*; the hairs along the costa were very striking, and he quite believed this was a case of mimicry. Quite lately he had found a second specimen in the [British] museum collection, which had been put away in the supplementary cabinet as not a lepidopterous insect.

Mr. F. P. Pascoe, in connection with the above, exhibited a large and pretty chalcid (which Mr. Fitch determined as one of the *cleonymidae*), which he had lately captured at St. Helier's, quite thinking it was a hemipteron; when running it had its wings overlapping in true bug fashion.

Miss E. A. Ormerod exhibited a piece of leather perforated by *oestridae*, the punctures being more than one to the square inch [16 to the square decimetre]. Miss Ormerod called attention to what is known of the life-history of our bot-flies, and especially of the warble-fly (*Hypoderma bovis*), and alluded to the practical necessity of attempting to lessen the amount of injury occurring both to the cattle themselves and to the hides.

Messrs. W. L. Distant, E. A. Fitch, and C. V. Riley made further remarks upon the same subject.

Mr. A. Wailly exhibited a large box of bred lepidoptera, especially of silk-producing *bombyces*. Amongst them ... were larvae hybrid between *Samia cecropia* and *S. ceanothi* (*californica*); the parents had paired without forcing in any way, but no pairing between the sexes of *S. ceanothi* could be obtained; he believed these larvae would produce *S. gloveri*. ...

3 Sept. 1884.—Mr. W. F. Kirby, on behalf of Mr. A. Wailly, who was present as a visitor, exhibited ... cocoons of *Ceratocampa imperialis*, and Mr. Wailly said that his suspicions that this larva was a cannibal had been fully verified by Mr. E. F. Hitchings, of Warren, Mass., who thus writes respecting this species:—

"In the fall of 1881 I obtained several almost full-grown larvae and put them in a box with plenty of pine and button-wood leaves; in a few days I noticed that several had disappeared, and upon examination found the skins with the juice all extracted. They were all of large size, and I found one or two of these skins held in the manner described by you. I then put in several full-grown larvae of *Telea polyphemus*, and they were disposed of in the same way. This led me to conclude they were carnivorous. In 1882 I noticed the same thing."

(*To be continued.*)